



# PUBLIC NOTICE

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## WIRELESS TELECOMMUNICATIONS BUREAU SEEKS COMMENT ON POPULATION DISTRIBUTION MODEL AND ELIGIBLE CENSUS BLOCK LIST TO BE APPLIED IN THE ALASKA PLAN

WC Docket No. 16-271

Comments Due: March 26, 2020

Reply Comments Due: April 10, 2020

1. In this Public Notice, as part of our implementation of the Commission's plan to support mobile and fixed service in high-cost areas of Alaska (Alaska Plan), we propose and seek comment on a population distribution methodology for estimating the number of Alaskans who receive mobile service within census blocks in remote areas. As discussed below, we propose to use this methodology to determine whether mobile service providers participating in the Alaska Plan have met their performance commitments through deployment in eligible census blocks.

2. In the *Alaska Plan Order*, adopted on August 23, 2016, the Commission froze the funds that were going to mobile providers in remote Alaska in return for specified network deployment commitments.<sup>1</sup> The frozen support can be used only to provide mobile voice and broadband service in those census blocks in remote Alaska where, as of December 31, 2014, less than 85% of the population was covered by the Fourth-Generation, Long Term Evolution (4G LTE) service of providers that are either unsubsidized or not eligible for frozen support in Alaska (frozen-eligible blocks).<sup>2</sup>

3. Each mobile wireless provider applying for frozen support was required to submit a performance plan setting forth its obligations to provide broadband service in remote areas of Alaska. The plan was to identify the total number of people the carrier would serve at year 5 and year 10 of the support term, the technology it would use to serve them (e.g., 3G, LTE), and the type of middle mile access it would employ (e.g., fiber, satellite).<sup>3</sup> The Order delegated to the Wireless Telecommunications

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<sup>1</sup> *Connect America Fund; Universal Service Reform–Mobility Fund; Connect America Fund–Alaska Plan*, WC Docket Nos. 10-90, 16-271, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139, 10162-63, para. 72 (2016) (*Alaska Plan Order*).

<sup>2</sup> *Alaska Plan Order*, 31 FCC Rcd at 10167, para. 87. The Commission also provided for separate funding to expand service in unserved areas of remote Alaska that did not have commercial mobile radio service as of December 31, 2014; this funding will be distributed through a reverse auction process. For purposes of this latter source of funding, “unserved” areas are defined as those census blocks where less than 15% of the population within the census block was within any mobile carrier’s coverage area. *Id.* at 10173-74, para. 106.

<sup>3</sup> *Id.* at 10166, para. 85.

Bureau (WTB) authority to review and approve the plans.<sup>4</sup> WTB approved the plans of eight Alaskan wireless providers on December 21, 2016.<sup>5</sup> The *Alaska Plan Order* also delegated authority to WTB to require additional information necessary to establish clear standards for determining whether or not carriers met their 5- and 10-year commitments.<sup>6</sup> The *Order* stated that the Commission would “rely on participating carriers’ Form 477 submissions in determining whether each carrier’s 5-year and 10-year milestones have been met.”<sup>7</sup>

4. GCI Communications Corp. (GCI), one of the providers participating in the Alaska Plan, submitted shapefiles showing the estimated location of population within remote Alaska census blocks and provided a list of those census blocks that are eligible for Alaska Plan frozen mobile support, based on GCI’s proposed methodology.<sup>8</sup> GCI used a population-distribution methodology that: (1) identified areas within a census block where people are likely to live, based on certain assumptions; and (2) evenly distributed the total population of the census block within those areas of the census block.<sup>9</sup> This methodology then used the mobile-provider coverage data from FCC Form 477 to determine the eligibility of census blocks.<sup>10</sup> If a remote census block showed at least 85% LTE coverage as of December 31, 2014, by an unsubsidized or ineligible provider, it was deemed ineligible for use of frozen support.<sup>11</sup>

5. Specifically, for those census blocks that have any reported population under the Census Bureau count, GCI’s methodology used road proximity and land status as factors indicating the location of population. First, it overlaid TIGER road data onto populated census blocks<sup>12</sup> on the basis that local roads are a key predictor of population location because large areas of Alaska are uninhabited and because many villages are unconnected to each other by highways or major roads.<sup>13</sup> The methodology included all roads in its analysis except for certain minor routes that, according to GCI, would be less likely to predict the location of a residence (e.g., unnamed roads, roads marked as “trails” and passable only by 4WD vehicles, and pedestrian trails). The methodology drew polygons around the included roads, extending 100 meters from each side of a road (areas outside of the polygons were assumed to be

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<sup>4</sup> *Id.* at 10160, 10167, paras. 67, 86. The Order also requires that participating providers update their end-of-term commitments by December 31, 2020, and the Order delegated authority to WTB to review these updates and to require revised commitments if it serves the public interest. *Id.* at 10166, para. 85.

<sup>5</sup> *Wireless Telecommunications Bureau Approves Performance Plans of the Eight Wireless Providers That Elected to Participate in the Alaska Plan*, WC Docket No. 16-271, Public Notice, 31 FCC Rcd 13317, Appx. (WTB 2016) (*Wireless Commitments Notice*) (approving wireless provider commitments).

<sup>6</sup> *Alaska Plan Order*, 31 FCC Rcd at 10166, para. 85.

<sup>7</sup> *Id.* at 10173, para. 103. Last year, the Commission initiated a new data collection, the Digital Opportunity Data Collection, which is distinct from the existing Form 477 collection and which will gather geospatial broadband service availability data specifically targeted toward advancing the Commission’s universal service goals. *Establishing the Digital Opportunity Data Collection; Modernizing the FCC Form 477 Data Program*, WC Docket Nos. 19-195, 11-10, Report and Order and Second Further Notice of Proposed Rulemaking, 34 FCC Rcd 7505 (2019) (*Digital Opportunity Data Collection Order*). As part of this effort, the Commission sought comment on incorporating mobile wireless voice and broadband coverage into the Digital Opportunity Data Collection and on what additional steps the Commission should take to obtain more accurate and reliable mobile broadband deployment data. *Id.* at Section IV.B.

<sup>8</sup> Letter from Julie A. Veach, Counsel, GCI, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-271, at 1 (filed Nov. 29, 2016) (GCI Nov. 29, 2016 *Ex Parte*).

<sup>9</sup> *Id.* at 1.

<sup>10</sup> *Id.* at 2-3.

<sup>11</sup> *Id.* at 1. See also *Alaska Plan Order*, 31 FCC Rcd at 10167, para. 87.

uninhabited).<sup>14</sup> Next, the methodology overlaid General Land Status data (categories of ownership) available from the State of Alaska on top of the polygons. The methodology then eliminated areas of the polygons where people are unlikely to reside, such as national wildlife refuges or state parks, while retaining areas that are privately, Natively, or municipally owned.

6. After completing these steps, GCI's proposed methodology evenly distributed the Census-reported population of each census block within the remaining polygon in that census block that represent where people are likely to live. For those census blocks where no polygon remains (i.e., where the assumptions regarding where people likely live did not identify populated areas), the methodology evenly distributed the Census-reported population of each census block across land owned by municipalities, private entities, or Alaska Natives. If there is no land owned by those groups, then the population would be distributed across the entire census block.<sup>15</sup>

7. Alaska Telecom Association (ATA), which represents all of the mobile providers participating in the Alaska Plan, including GCI, evaluated GCI's proposed methodology to determine whether it "reasonably establishes approximate locations of the population within each Participant's Alaska Plan-eligible service areas."<sup>16</sup> ATA generally supports GCI's methodology except that, for the four geographic areas of Alaska specified below, ATA asserts that certain local data sources should be used to draw the polygons that approximate the location of population in those areas, rather than GCI's predictors.<sup>17</sup>

- In and around Unalaska, in an area covering 31 census blocks, ATA obtained address and location information from the local government, and it created polygons around addresses (with a 50-meter buffer) in residential areas to represent the location of the population.
- Near Nome and Unalakleet, in an area covering 187 census blocks, ATA used aerial imagery data from Google Earth to identify building structures, then manually drew polygons around them as a proxy for the location of population.
- In the Prudhoe Bay area, in an area covering 16 census blocks where ATA believes the 2010 census reflects primarily oil field workers rather than year-round population, it used Google Earth and internal ASTAC location data to identify populated areas (primarily developed worksites, mobile camps, and staging areas).
- In the Copper Valley, in an area covering 61 census blocks, ATA used Google Earth and internal Copper Valley Telephone Company structural location data.

8. ATA also notes that its members, during actual on-the-ground deployment and upgrade activities, may discover that the methodology does not accurately reflect precise locations. ATA indicates that it then would provide updated information to WTB for consideration in evaluating satisfaction of

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<sup>12</sup> TIGER stands for Topologically Integrated Geographic Encoding and Referencing. Census uses this format to describe land attributes such as roads and lakes, as well as Census-defined boundaries. See Census Bureau, TIGER/Line Shapefiles, Technical Documentation (2019), [https://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2019/TGRSHP2019\\_TechDoc.pdf](https://www2.census.gov/geo/pdfs/maps-data/data/tiger/tgrshp2019/TGRSHP2019_TechDoc.pdf).

<sup>13</sup> GCI Nov. 29, 2016 *Ex Parte* at 2.

<sup>14</sup> *Id.* at 2.

<sup>15</sup> *Id.* at 2-3.

<sup>16</sup> Letter from Christine O'Connor, Executive Director for ATA, to Marlene H. Dortch, Secretary, FCC, WC Docket No. 16-271, at 1 (filed on Feb. 8, 2019) (ATA Feb. 8, 2019 *Ex Parte*).

<sup>17</sup> *Id.* at 1.

ATA members' commitments.<sup>18</sup>

9. We propose to use the population distribution methodology set forth by GCI, as modified by ATA in the four geographic areas noted above, to estimate the number of Alaskans who receive service in census blocks in remote areas (hereinafter, Alaska Population-Distribution Model), and we seek comment on this proposal. We emphasize that this model would be used for the unique purpose of evaluating whether participating providers have met their performance obligations associated with receiving frozen support under the Alaska Plan. We tentatively conclude that the Alaska Population-Distribution Model is the most appropriate methodology of those proposed in the record for estimating where people are located within Alaskan census blocks because it includes useful indicators regarding local road proximity and land use, while also taking into account local information where available. Given that the population generally is not evenly distributed throughout a census block in remote areas of Alaska and that census blocks may be very large and sparsely populated, an appropriate methodology is critical to estimating the location of Alaskan population.<sup>19</sup> As ATA explains, "Alaska is a vast state with some populated census blocks as large as New Jersey."<sup>20</sup> We recognize the need for a methodology that reflects the unique nature of Alaska by relying on both general indicators about population location and observations of specific locations, where available.

10. We seek comment on whether we should adopt any modifications or additions to the Alaska Population-Distribution Model and on how such changes would increase the accuracy and reliability of estimates of population distribution in Alaskan census blocks. In particular, we seek comment on procedures for updating population distribution data used in the Alaska Population-Distribution Model, or any other model we adopt, based on actual on-the-ground data.<sup>21</sup> First, what obligations should apply to mobile service providers participating in the Alaska Plan to submit updated local information? Should we require participating providers to submit any local information about populated areas that is inconsistent with the distribution of population assumed in the Alaska Population-Distribution Model? Should there be a deadline for submitting local information, relative to obtaining the information and/or relative to performance deadlines, and should we require the submitted information to be certified as accurate and complete as of a certain date? Should we adopt a process for interested parties to dispute or rebut submitted information, and what should the timeline and details of such a process be? Should the Bureau hold carriers accountable when they fail to submit relevant on-the-ground data that they know or should have known, and if so, how? In addition, we seek comment on whether WTB should establish requirements or provide guidance regarding the types of data sources that participating providers should use when updating population distribution based on local information, in order to facilitate consideration of reliable data. Commenters should discuss all logistical issues posed by submitting local information.

11. We also seek comment on whether an alternative model would be more accurate or reliable than the Alaska Population-Distribution Model for assessing how to estimate the distribution of population within census blocks in remote areas of Alaska and, if so, why. We note that, in the context of the Digital Opportunity Data Collection, the Commission has proposed to develop a database of broadband-serviceable locations that could be used, along with coverage polygons submitted by service providers, to identify the specific locations within a census block that lack fixed broadband availability.<sup>22</sup>

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<sup>18</sup> *Id.* at 2.

<sup>19</sup> *See generally Alaska Plan Order*, 31 FCC Rcd at 10141-42, para. 6 & n.15 (discussing the challenges presented by the remote nature of Alaska—including the state's large size, varied terrain, harsh climate, isolated populations, and lack of access to infrastructure.).

<sup>20</sup> ATA Feb. 8, 2019 *Ex Parte* at 2.

<sup>21</sup> ATA states that under its methodology, it would inform the Bureau whenever actual on-the-ground data show that the Alaska Population-Distribution Model is not an accurate depiction of population location. *Id.* at 2.

<sup>22</sup> *Digital Opportunity Data Collection Order*, 34 FCC Rcd at 7545-49, paras. 99-111. The Commission proposed to create and integrate a tool into the Digital Opportunity Data Collection that maps broadband-serviceable locations (continued....)

We seek comment on whether this database of broadband-serviceable locations, if the Commission decides to develop it, should be used to estimate the distribution of population within remote Alaska census blocks for the purpose of determining whether mobile service providers have met their Alaska Plan performance commitments. If so, how should this database of broadband-serviceable locations be used for the purpose of assessing compliance with Alaska Plan mobile performance commitments, and should the database replace or supplement the Alaska Population-Distribution Model for this purpose? For any population distribution model that we ultimately adopt, we propose that each carrier, when it certifies it has met its population service commitments, should be required to submit its analysis and supporting documentation for each census block.<sup>23</sup> Obtaining this analysis and supporting documentation is necessary for our continuing oversight of the Alaska Plan and to verify the accuracy of carrier certifications.

12. We also propose to use the Alaska Population-Distribution Model to identify those census blocks in remote areas of Alaska that are eligible for frozen support under the Alaska Plan, and accordingly, that can be counted by participating carriers towards their performance commitments.<sup>24</sup> We note that in the four geographic areas where ATA recommends using certain local data sources to estimate population distribution instead of GCI's predictors, there was no 4G LTE service from an ineligible or unsubsidized provider as of December 31, 2014 (i.e., census blocks in these areas would be eligible for frozen support, regardless of the methodology used to estimate the location of Alaskans). Accordingly, the list of frozen-eligible blocks submitted by GCI prior to ATA's recommendation would be the same as a list generated using our proposed Alaska Population Distribution Model, and we propose to use this list submitted by GCI to represent those census blocks that are eligible for frozen support under the Alaska Plan.<sup>25</sup> In particular, we propose and seek comment on whether to use this list of frozen-eligible census blocks when determining if wireless providers have met their commitments under the Alaska Plan. Are there specific census blocks on the list that should not be considered "frozen eligible"? Are there census blocks that should be added? Commenters opposed to using the list should be specific about their reasons and propose alternative ways of evaluating if commitments have been met.

13. *Ex Parte Rules: Permit-but-Disclose.* This proceeding shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.<sup>26</sup> Persons making *ex parte* presentations must file a copy of any written presentation or a memorandum summarizing any oral presentation within two business days after the presentation (unless a different deadline applicable to the Sunshine period applies). Persons making oral *ex parte* presentations are reminded that memoranda summarizing the presentation must (1) list all persons attending or otherwise participating in the meeting at which the *ex parte* presentation was made, and (2) summarize all data presented and arguments made during the presentation. If the presentation consisted in whole or in part of the presentation of data or arguments already reflected in the presenter's written comments, memoranda or other filings in the

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(e.g., houses, businesses, structures), and sought comment on what kinds of locations should be included as broadband-serviceable.

<sup>23</sup> 2010 Census data would be used to determine the population of the census block. *See generally Wireless Commitments Notice*, 31 FCC Rcd at Appx. (providing commitments with a "population 2010 Census" column).

<sup>24</sup> *See Alaska Plan Order*, 31 FCC Rcd at 10167, para. 87 ("We provide that frozen support provided to mobile carriers pursuant to the Alaska Plan may only be used to provide mobile voice and broadband service in those census blocks in remote Alaska where, as of December 31, 2014, less than 85% of the population was covered by the 4G LTE service of providers that are either unsubsidized or not eligible for frozen support in Alaska and accordingly subject to a phase down of all current support.").

<sup>25</sup> *See* GCI Nov. 29, 2016 *Ex Parte*. We note that GCI's list also includes those census blocks that would be considered "unserved" blocks under GCI's proposed methodology, and we do not seek comment in this Public Notice on the methodology for establishing which blocks are unserved.

<sup>26</sup> 47 CFR §§ 1.1200 *et seq.*

proceeding, the presenter may provide citations to such data or arguments in his or her prior comments, memoranda, or other filings (specifying the relevant page and/or paragraph numbers where such data or arguments can be found) in lieu of summarizing them in the memorandum. Documents shown or given to Commission staff during *ex parte* meetings are deemed to be written *ex parte* presentations and must be filed consistent with rule 1.1206(b). In proceedings governed by rule 1.49(f) or for which the Commission has made available a method of electronic filing, written *ex parte* presentations and memoranda summarizing oral *ex parte* presentations, and all attachments thereto, must be filed through the electronic comment filing system available for that proceeding, and must be filed in their native format (e.g., .doc, .xml, .ppt, searchable .pdf). Participants in this proceeding should familiarize themselves with the Commission's *ex parte* rules.

14. *Comment Period and Filing Procedures.* Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <https://www.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one active docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

15. Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9050 Junction Drive, Annapolis Junction, MD 20701.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

16. *People with Disabilities:* To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

17. *Availability of Documents.* Comments, reply comments, and *ex parte* submissions will be available for public inspection during regular business hours in the FCC Reference Center, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room CY-A257, Washington, D.C. These documents will also be available via ECFS. Documents will be available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat.

18. *Additional Information.* For additional information on this proceeding, contact Matthew Warner of the Wireless Telecommunications Bureau, Competition and Infrastructure Policy Division, [akplan@fcc.gov](mailto:akplan@fcc.gov), (202) 418-0247.

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